Abstract

Densification of ceramic materials using electromagnetic super high frequency waves, as well as vessel for performing the method

Method for manufacturing ceramic parts with a certain porosity by sintering using microwaves, the materials to be sintered being arranged in a vessel,

characterized in that

- the microwaves introduce sintering energy into the materials to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, and

- besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises, in particular, a mixture of or mixed crystals of non-metallic, para-, ferro- or antiferromagnetic materials.

(Fig. 2)